WHAT IS CLAIMED IS:

1. A anaerobic hydrogen producing process including steps of:

I. A first step of shattering waste into particles of the length and width of less than 1 millimeter and then mixing them in water:

II.A second step of preliminary treating and concocting seeding material:

III.A third step of anaerobic fermenting for producing hydrogen:

IV.A fourth step of anaerobic fermenting for producing methane: and,

V.A fifth step of purifying gas exhausted by hydrogen producing fermentation.

2. The anaerobic hydrogen-producing process as claimed in Claim 1, wherein said second (II) step of preliminary and concocting seeding material is to stimulate germination of anaerobic hydrogen-producing bacteria and to contain activeness of hydrogen-utilizing bacteria, said second (II) step comprising treatments of:

(1) Placing weed compost or cattle dung compost in a fermentor for three hours, with the temperature in the fermentor adjusted at 80 – 90 degrees;

(2) Mixing said seed compost or said cattle dung compost in reverse osmosis water with the ratio (weight ratio) being 0.5 – 1.5/0.5

1.5/10: and,

(3) Stirring said mixed solution finishing the (2) step and let it settle down and take the upper layer of the solution as a seeding material.

3. The anaerobic hydrogen-producing process as claimed in Claim 1, wherein said third (III) step of anaerobic fermenting for producing hydrogen includes batch reacting treatment, said batch reacting treatment comprising:

(1) Placing said organic waste (in dry condition), said seeding material and said nutrient respectively in a thermostatic batch reactor, with their ratio being 1/12.5/0.4 – 0.5.

(2) Adding pure water in said materials in the (1) treatment, and adjust the density of the basic material to 2% - 5%.

(3) Adjusting the temperature of the reactor at 35 to 45 degrees.

(4) Exposing mixed gas of carbon dioxide and nitrogen on an inner surface of said liquid in said reactor, with the pressure ratio (P_{CO2}/P_{N2}) of said carbon dioxide and said nitrogen being 3/7; and,

(5) After sealing the cap of the reactor, disconnect the gas exposing device to prevent air from flowing therein:

Hydrogen beginning to produce in one to three days and stopping in a week or so.

4. The anaerobic hydrogen-producing process as claimed in Claim 3, wherein said nutrient materials used in said third (III) step of the batch reacting treatment for producing hydrogen by anaerobic

fermentation comprising:

(1) 500 t0 600 mg/L of ammonium acid carbonate (NH_4HCO_3);

(2) 35 to 45 mg/L of potassium dihydrophosphate (KH_2PO_4):

(3) 3 to 5 mg/L of magnesium sulfate ($MgSO_4.7H_2O$):

(4) 0.3 to 0.5 mg/L of sodium chloride (NaCl);

(5) 0.3 to 0.5 mg/L of sodium molybdate ($NaMoO_4.\ 2H_2O$);

(6) 0.3 to 0.5 mg/L of calcium chloride ($CaCl_2.\ 2H_2O$);

(7) 0.5 to 0.7 mg/L of manganese sulfate ($MnSO_4.\ 7H_2O$); and,

(8) 0.10 to 0.15 mg/L of ferrous chloride ($FeCl_2$):

5. The method for producing hydrogen under anaerobic condition as claimed in Claim 1, wherein said third (III) step of anaerobic fermentation for producing hydrogen uses a batch reactor for carrying out batch reaction, said batch reaction needing the most favorable conditions of:

(a) Iron ion density being 100 to 150 mg/L;

(b) Ammonium ion density being 500 to 600 mg/L;

(c) Phosphate ion density being 1400 to 1800 mg/L;

(d) The pH value at the beginning being 6.0 - 6.5;

(e) Said reactor being horizontal, and having rotating speed along the horizontal axis being 25 - 35 rpm/m; and,

(f) The temperature of said reactor controlled to be at 35 to 45 degrees.

6. The anaerobic hydrogen-producing process as claimed in Claim 3, wherein the continual reactor has initial conditions, said initial conditions comprising:

(1) The solid density of said basic material in said continual reactor being 2% to 5%;

(2) The volume ratio of said basic material and said seeding material being 1/3 - 1/5;

(3) The volume ratio of said nutrient and said basic material being 1/15 - 1/20;

(4) The rotating speed of said reactor being 30 - 100 rpm/m; and,

(5) The temperature of said reactor controlled to be at 35 to 45 degrees.

7. The anaerobic hydrogen-producing process claimed in Claim 6, wherein said basic material in said reactor is a substance generating energy such as weeds, compost or the like.

8. The anaerobic hydrogen-producing process as claimed in Claim 6, wherein said basic material in said reactor is waste.